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HOME DELIVERY MAP INFORMATION RETRIEVAL SYSTEM AND PROGRAM

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**HOME DELIVERY MAP INFORMATION RETRIEVAL SYSTEM AND PROGRAM**

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[There are no amendments to this patent.]

**Claims**

1. A home delivery map information retrieval system characterized in that it comprises: a portable terminal for inputting and transmitting the residence representing the home delivery destination of the home delivery item and the home delivery code of the aforementioned home delivery item and that receives and displays map information relative to the aforementioned home delivery destination; a home delivery map information system that receives the residence and home delivery code from the aforementioned portable terminal, that searches a map information database based on the aforementioned residence and extracts the desired map information, that registers the residence address that indicates the location of the aforementioned desired map information in the aforementioned map information database in a customer information database

based on the aforementioned home delivery code, and transmits the aforementioned map information to the aforementioned portable terminal; and a communication network that connects the aforementioned portable terminal and the aforementioned home delivery map information system with each other.

2. A home delivery map information retrieval system characterized in that the aforementioned home delivery map information system in the home delivery map information retrieval system mentioned in Claim 1 is provided with: a map information database that includes residences and residence addresses, a customer information database that includes the customer residence, name, telephone number and home delivery code, and a home delivery map retrieval server that searches the aforementioned map information database based on the residence received from the aforementioned portable terminal to extract the residence address, that registers the aforementioned residence address by adding it to the customer information in the aforementioned customer information database based on the home delivery code received from the aforementioned portable terminal, and that transmits map information corresponding to the aforementioned residence address to the aforementioned portable terminal.

3. A home delivery map information retrieval system characterized in that the aforementioned home delivery map retrieval server in the home delivery map information retrieval system mentioned in Claim 1 or 2 references the aforementioned customer information database when it receives either the telephone number, name or residence from the aforementioned portable terminal and reads the residence address corresponding to it, searches the aforementioned map information database based on the aforementioned residence address to extract said map information, and transmits the aforementioned map information to the aforementioned portable terminal.

4. A home delivery map information retrieval system characterized in that the aforementioned portable terminal in the home delivery map information retrieval system mentioned in Claim 1, 2 or 3 is input with either the telephone, name or residence of the home delivery destination and transmits it to the aforementioned home delivery map information system, receives the map information for the aforementioned home delivery destination from the aforementioned home delivery map information system; and displays it.

5. A home delivery map information retrieval system characterized in that the aforementioned portable terminal in the home delivery map information retrieval system mentioned in Claim 1 or 2 is equipped with a barcode reader that reads a barcode attached to the home delivery item and obtains the home delivery code for it.

6. A home delivery map information retrieval program characterized in that it comprises: a step for holding a map information database that includes residences and residence addresses, a step for holding a customer information database that includes the customer residence, name,

telephone number and home delivery code; a step for searching the aforementioned map information database based on the residence received from a portable terminal and extracting said residence address, a step for registering the aforementioned residence address by adding it to the customer information concerned in the aforementioned customer information database based on the home delivery code received from the aforementioned portable terminal, and a step for transmitting the map information corresponding to the aforementioned residence address to the aforementioned portable terminal.

7. A home delivery map information retrieval program characterized in that the home delivery map information retrieval program mentioned in Claim 6 includes a step for referencing the aforementioned customer information database when either the telephone number, name or residence is received from the aforementioned portable terminal and for reading the residence address corresponding to it, a step for searching the aforementioned map information database based on the aforementioned residence address and extracting said map information, and a step for transmitting the aforementioned map information to the aforementioned portable terminal.

#### Detailed explanation of the invention

[0001]

##### Technical field of the invention

The present invention relates to a home delivery map information retrieval system and program, and in particular relates to a home delivery map information retrieval system and program where the individual responsible for home delivery uses a portable terminal to acquire map information for the home delivery destination.

[0002]

##### Prior art

In the home delivery industry, an operation in which labor and time by the necessary personnel cannot be avoided is the operation of actually taking the home delivery item to the home delivery destination. Particularly when the home delivery destination is an unknown location, the individual in charge of the home delivery is sometimes forced to waste time beyond expectations until he reaches the home delivery destination.

[0003]

In the past, the individual in charge of the home delivery would have used a means such as carrying along a map (text) to search the vicinity or been guided while in contact with the company if the geography of destination was unknown. If a map (text) is carried along, content where even small alleys are described would have to be prepared. With guidance by telephone from the

company; being only verbal, recognition would require time, and the person guiding at the company would also spend corresponding time.

[0004]

#### Problems to be solved by the invention

As described above, with conventional home delivery operations, measures for when the geography of the destination for the home delivery item is unknown have not always been accomplished satisfactorily. That is, to use a map, a large map with detailed descriptions is essential, so carrying and searching through it are cumbersome. To receive guidance by telephone, there is also the inconvenience of verbal information exchange and transmission only, and this also causes difficulties for the guide.

[0005]

The purpose of this invention is to provide a home delivery map information retrieval system and program that will make it possible for the individual responsible for the home delivery to acquire map information for the home delivery destination with a simple operation with a portable terminal in order to improve the problems as described above.

[0006]

#### Means to solve the problems

This invented home delivery map information retrieval system is characterized in that it has: a portable terminal for inputting and transmitting the residence that indicates the home delivery destination of the home delivery item and the home delivery code of the aforementioned home delivery item and that receives and displays map information related to the aforementioned home delivery destination; a home delivery map information system that receives the residence and home delivery code from the aforementioned portable terminal, that searches a map information database based on the aforementioned residence and extracts the desired map information, that registers the residence address that indicates the location of the aforementioned desired map information in the aforementioned map information database in a customer information database based on the aforementioned home delivery code, and transmits the aforementioned map information to the aforementioned portable terminal; and a communication network that connects the aforementioned portable terminal and the aforementioned home delivery map information system with each other.

[0007]

In addition, the aforementioned home delivery map information system in the home delivery map information retrieval system of this invention is characterized in that it is provided with: a map information database that includes residences and residence addresses, a customer information database that includes the customer residence, name, telephone number and home delivery code, and a home delivery map retrieval server that searches the aforementioned map information database based on the residence received from the aforementioned portable terminal to extract the residence address, that registers the aforementioned residence address by adding it to the customer information in the aforementioned customer information database based on the home delivery code received from the aforementioned portable terminal; and that transmits map information corresponding to the aforementioned residence address to the aforementioned portable terminal.

[0008]

In addition, the aforementioned home delivery map retrieval server in the home delivery map information retrieval system of this invention is characterized in that it references the aforementioned customer information database when it receives either the telephone number, name or residence from the aforementioned portable terminal and reads the residence address corresponding to it, searches the aforementioned map information database based on the aforementioned residence address to extract said map information, and transmits the aforementioned map information to the aforementioned portable terminal.

[0009]

In addition, the aforementioned portable terminal in this home delivery map information retrieval system is characterized in that it is input with either the telephone, name or residence of the home delivery destination and transmits it to the aforementioned home delivery map information system, receives the map information for the aforementioned home delivery destination from the aforementioned home delivery map information system, and displays it.

[0010]

In addition, the aforementioned portable terminal in this home delivery map information retrieval system is equipped with a barcode reader that reads a barcode attached to the home delivery item and obtains the home delivery code for it.

[0011]

Also, this home delivery map information retrieval program is characterized in that it has: a step for holding a map information database that includes residences and residence addresses, a step for holding a customer information database that includes the customer residence, name, telephone number and home delivery code, a step for searching the aforementioned map information database based on the residence received from a portable terminal and extracting said residence address, a step for registering the aforementioned residence address by adding it to the customer information in the aforementioned customer information database based on the home delivery code received from the aforementioned portable terminal, and a step for transmitting the map information corresponding to the aforementioned residence address to the aforementioned portable terminal.

[0012]

In addition, this novel home delivery map information retrieval program is characterized in that it includes: a step for referencing the aforementioned customer information database when either the telephone number, name or residence is received from the aforementioned portable terminal and for reading the residence address corresponding to it, a step for searching the aforementioned map information database based on the aforementioned residence address and extracting said map information, and a step for transmitting the aforementioned map information to the aforementioned portable terminal.

[0013]

Namely, with this invention, the person in charge of the home delivery can reference map information for the vicinity of the visit destination by inputting the name, telephone number or residence of the visit destination with a portable terminal that is connected online to the home delivery map information system.

[0014]

Embodiment of the invention

This invention will be explained below while referring to the figures.

[0015]

Figure 1 is an explanatory diagram that shows one embodiment of this invention. In the figure, the home delivery map information retrieval system based on this invention comprises: a portable terminal (20) that receives input of and transmits a residence representing the home delivery destination of the home delivery item and a home delivery code for the aforementioned

home delivery item; and that receives map information related to the aforementioned home delivery destination and displays it; a home delivery map information system (10) that receives the residence and home delivery code from the aforementioned portable terminal, that searches the map information database based on the aforementioned residence and extracts the desired map information, that registers a residence address that indicates the location of the aforementioned desired map information in the aforementioned map information database in a customer information database based on the aforementioned home delivery code, and that transmits the aforementioned map information to the aforementioned portable terminal; and a communication network (30) that connects the aforementioned portable terminal and the aforementioned home delivery map information system to each other.

[0016]

The aforementioned home delivery map information system (10) is provided with: a map information database (13) that includes residences and residence addresses; a customer information database (12) that includes the customer residence, name, telephone number and home delivery code; and a home delivery map retrieval server (11) that searches the aforementioned map information database based on the residence received from the aforementioned portable terminal to extract the residence address, that registers the aforementioned residence address by adding it to the customer information concerned in the aforementioned customer information database based the home delivery code received from the aforementioned portable terminal, and that transmits the map information corresponding to the aforementioned residence address to the aforementioned portable terminal.

[0017]

In addition, aforementioned home delivery map retrieval server (11) is provided with a function for referencing the aforementioned customer information database when it receives either the telephone number, name or residence from the aforementioned portable terminal to read the residence address corresponding to it, searching the aforementioned map information database based on the aforementioned residence address to extract the map information concerned, and to transmit the aforementioned map information to the aforementioned portable terminal.

[0018]

Aforementioned portable terminal (20) is also equipped with a barcode reader that reads a barcode stuck on the home delivery item and obtains the home delivery code for it.

[0019]

Here, it is assumed that the aforementioned communication network (30) is the internet.

[0020]

Namely, in the aforementioned home delivery map information retrieval system, portable terminal (20) is a terminal that the delivery person carries. It is provided with a function for inputting kanji and numerals, a function for displaying a map, a function for reading the barcode attached to the home delivery item, and a function for online connection with home delivery map retrieval server (11) via communication network (30).

[0021]

In addition, the home delivery map retrieval server (11) is located in the delivery supplier's company building. It has a function whereby customer information (name, telephone number, residence, etc.) database (12) and map information database (13) are connected and customer map information is transmitted to portable terminal (20) via communication network (30).

[0022]

Figure 2 is a flowchart that shows the operation of the aforementioned home delivery map information retrieval system. In the figure, first, it is determined whether the individual responsible for the delivery has referenced the destination map information in the past (that is, whether the map information is registered) (S1).

[0023]

If not registered at S1, the residence of the home delivery destination is input into the residence input field, as shown in the portable terminal screen in Figure 3, and the map relating to it is acquired and displayed (S2).

[0024]

That is, the delivery person connects to home delivery map information system (10) via communication network (30) from portable terminal (20) prior to making the delivery and inputs the residence for the home delivery location with the residence input field on the portable terminal screen. Thus a simple map of the vicinity of the home delivery destination is acquired and displayed from home delivery map information system (10).

[0025]

Next, the barcode (number that identifies the home delivery item = home delivery code) attached to the home delivery item is read and the position of the home delivery location is plotted (S3).

[0026]

After this, the residence address for the map concerned in map information database (13) (refer to Figure 6) is added to the management information for the customer concerned in customer information database (12) (refer to Figure 5) (S4).

[0027]

That is, the position information (residence address) in the map information database (13) is added to the management information (name, telephone number, residence) in the customer information database (12) at the delivery supplier and registered, and customer management information that includes the residence address as shown in Figure 5.

[0028]

Here, the portable terminal screen displays a map of the home delivery destination acquired (S 6).

[0029]

If registered at S1, a map of the home delivery destination can be acquired and displayed by inputting either the telephone number, name or residence of the home delivery destination as shown on the portable terminal screen in Figure 4 (S5,S6).

[0030]

That is, to repeatedly reference the same home delivery destination, the residence address can be acquired from the customer information database by inputting only the customer telephone number, for example; and map information can additionally be acquired from the map information database by the residence address and displayed on the portable terminal screen.

[0031]

Here, map information can be acquired by inputting the residence if map information cannot be acquired by inputting a telephone number or name, and can in addition be registered in the customer information database.

[0032]

Note that the aforementioned home delivery map information retrieval system operates by executing a program held in the main memory of the home delivery map retrieval server. The customer information database is also completed by executing this program and convenience in map referencing by the portable terminal is improved.

[0033]

#### Effect of the invention

As explained in detail above, with this invention, map information can easily be acquired with a portable terminal via a communication network. So with a destination where the geography is unknown, if the telephone number of the destination is known, for example, the portable terminal can be used anywhere to reference a map of near the destination. That is, it has the effect that it is possible to accomplish efficient delivery operations without carrying a large atlas or getting location guidance over the telephone.

#### Brief description of the figures

##### Figure 1

An explanatory diagram that shows one embodiment of this invention.

##### Figure 2

A flowchart that shows the operation of this invention.

##### Figure 3

An explanatory diagram that shows the screen for registering the home delivery destination.

##### Figure 4

An explanatory diagram that shows the screen that displays the home delivery destination.

##### Figure 5

An explanatory diagram that shows the configuration of the customer information database.

##### Figure 6

An explanatory diagram that shows the configuration of the map information database.

### Explanation of reference symbols

- (10) Home delivery map information system
- (11) Home delivery map retrieval server
- (12) Customer information database
- (13) Map information database
- (20) Portable terminal
- (30) Communication network
- (S1)-(S6) Operating step

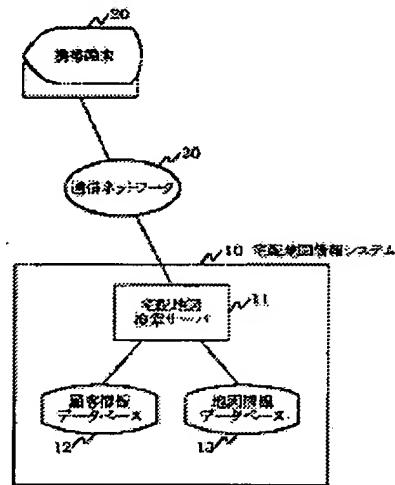


Figure 1

Key:

- 10 Home delivery map information system
- 11 Home delivery map retrieval server
- 12 Customer information database
- 13 Map information database
- 20 Portable terminal
- 30 Communication network

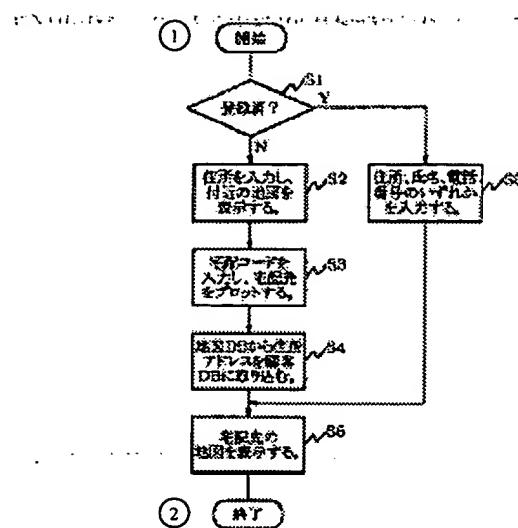


Figure 2

Key:

- 1 Start
- 2 End
- S1 Registered?
- S2 Input residence and display nearby map.
- S3 Input home delivery code and plot home delivery destination.
- S4 Take residence address from map database into customer database.
- S5 Input either residence, name, or telephone number
- S6 Display map of home delivery destination.

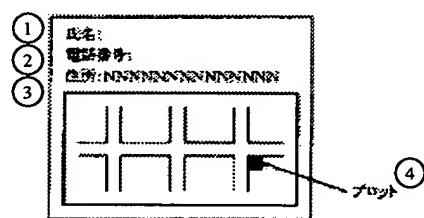


Figure 3

Key:

- 1 Name
- 2 Telephone number
- 3 Residence
- 4 Plot

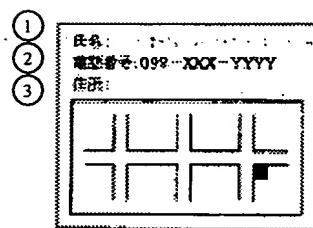


Figure 4

Key:

- 1 Name
- 2 Telephone number
- 3 Residence

①	②	③	④	⑤	⑥
番号	電話番号	配達コード	氏名	住所名	住所アドレス
00001	092-XXXX	00100	日暮太郎	福岡市	XX-YY
			(7)	(8)	

Figure 5

Key:

- 1 Customer number
- 2 Telephone number
- 3 Home delivery code
- 4 Name
- 5 Residence name
- 6 Residence address
- 7 Taro Nichiden
- 8 Fukuoka-shi

①	②	③
住居アドレス	住居名	近隣住居アドレス
XX-YY	福岡市南区XX4丁目5-1	YY-QQ-AA-BB
(4)		

Figure 6

Key:

- 1 Residence address
- 2 Residence name
- 3 Nearby residence address
- 4 5-1 XX 4-chome, Minami-ku, Fukuoka-shi

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